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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,983	03/13/2001	Marvin A. Leedom	2506.2012-001	9359

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EXAMINER

NI, SUHAN

ART UNIT PAPER NUMBER

2643

DATE MAILED: 01/23/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/804,983

Applicant(s)

LEEDOM, MARVIN A.

Examiner

Suhan Ni

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18,26-42,46-49,51-56 and 58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18,26-42,46-49,51-56 and 58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This communication is responsive to amendment dated 11/12/2003.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 58 is indefinite, since claim 57, claim 58 being depended upon is cancelled.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18, 26-42, 46-49 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brimhall et al. (U. S. Pat. - 6,456,720).

Regarding claims 1, 26, 46-48, Brimhall et al. disclose a hearing aid, comprising a first section containing a microphone (160) and electronics; a second section containing a battery; and a third section having a compliant tip (200) and a receiver (150), wherein the tip comprises a sound port (212, 214) and has a mushroom shaped configuration. But Brimhall et al. do not

Art Unit: 2643

clearly teach that the battery is permanently affixed with the hearing aid as claimed. Since permanently providing a high capacitive battery, such as a Ni-MH rechargeable battery for a hearing aid is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to permanently provide the above mentioned battery for the hearing aid, in order to enhance the efficiency for the hearing aid. Furthermore, Brimhall et al. do not clearly teach that the tip comprises a first material; a second material; and a third material, and said materials have different physical characteristics as claimed. Since providing a mushroom shaped tip, having at least three different material, such as surface coating, shell, filler, sound duct, and so on for a hearing aid is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a suitable materials for the tip of the hearing aid, such as a biological insensitive material for the surface coating, an elastic molding material for the shell, a foam material for the filler and a low durometric material for the sound duct, in order to provide a comfortable fitted hearing aid for the users.

Regarding claims 2-8 and 27-33, Brimhall et al further disclose the flex circuit having a receiver and microphone mating portions (104, 106) and conductive paths include of at least one receiver lead and at least one anode lead (200, 202 and 204, Fig. 12E).

Regarding claims 9-10 and 34-35, Brimhall et al fail to disclose that the anode lead includes a discontinuity which prevents the hearing aid from drawing power from the battery, unless bridged by an actuator. It is well known in the art of hearing aids that the hearing aids are turned on/off - drawing/not drawing power from the battery when the electronic circuits are bridged/unbridged by the activation of the on/off switches. Therefore, it would have been

Art Unit: 2643

obvious to one of ordinary skill in the art to provide a discontinuity in the lead or the electrical circuit of Brimhall et al, as is well known in the art, so as to draw or not draw power from the battery when the discontinuity lead is bridged or not bridge by switches to activate on/off of the hearing aid.

Regarding claims 11 and 36, the flex circuit comprises at least one aperture to allow air to travel to the battery (the contact 190 is bent therefore leaving an opening for air to travel to the battery, see Fig. 11).

Regarding claims 12 and 37, Brimhall et al further disclose a mechanical securing mechanism (66).

Regarding claims 13 and 38, in the alternative, Brimhall et al disclose a first section (faceplate 40 contains portion of microphone and the electronics) containing a microphone and electronics; a second section (20) attached to the first section and containing a battery and a flex circuit (Fig. 10 shows shell 2 contains portion of the battery and the flex circuit; and third section (compliant tip 200). Brimhall et al further disclose a potting material surrounding the receiver to attenuate acoustic feedback (152 and 152, see col. 13, second paragraph).

Regarding claims 14-15, 39-42, 49, 51-53, Brimhall et al further disclose the conformal tip (200) having a mushroom shaped portion (fig. 24 or 25) and channel (214).

Regarding claims 16-18, Brimhall et al disclose the tip comprising a first durometer material (200) and a second durometer (20).

4. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoest (U. S. Pat. - 5,970,157).

Art Unit: 2643

Regarding claim 54, Yoest discloses a tip for a hearing aid, comprising: at least a first material (12 or 22); a second material (22 or 12); and a third material (a filler material – please see Fig. 2), wherein said materials are different and said third material contains a receiver (16). But Yoest does not clearly teach that the third material has a higher durometer than the second material, and the first material respectively as claimed. Since providing a high durometer material as a filler for filling a hearing aid shell (12) is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a suitable filling material, such as a elastic foam material for filling the shell of the hearing aid, in order to provide a desirable engagement for the receiver, and reduce certain undesirable vibrations for the hearing aid.

Regarding claim 55, Yoest does not clearly teach a mushroom shaped configuration as claimed. Since providing a mushroom shaped tip, especially for cerumen trapping for a hearing aid is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a suitable sized mushroom shaped tip for the hearing aid, in order to provide a comfortable fitting for the users and protect damage from cerumen.

Regarding claim 56, Yoest further discloses the tip for a hearing aid, wherein the second material (12 or 20) comprises a sound bore (Fig. 3) as claimed.

### ***Response to Amendment***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2643

***Conclusion***

6. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. Any response to this final action should be mailed to:

**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

or faxed to:

**(703) 308-9051**, (for formal communications; please mark "EXPEDITED PROCEDURE"), or

**(703) 305-9508**, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

**Receptionist, Sixth Floor,  
Crystal Park II,  
2121 Crystal Drive,  
Arlington, Virginia 22202**

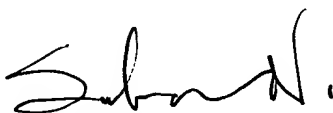
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(703)-308-9322**, and the

Art Unit: 2643

number for fax machine is **(703)-305-9508**. The examiner can normally be reached on Monday through Thursday from 9:00 am to 7:30 pm. If it is necessary, the examiner's supervisor, **Curtis Kuntz**, can be reached at **(703) 305-4708**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(703) 305-3900**.

Suhan Ni  
Patent Examiner  
Art Unit 2643  
USPTO

  
SUHAN NI  
PATENT EXAMINER

January 14, 2004